

## 03050110-050

(*Cedar Creek*)

### General Description

Watershed 03050110-050 is located in Richland County and consists primarily of *Cedar Creek* and its tributaries. The watershed occupies 68,038 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Dothan-Norfolk-Chastain-Marlboro-Tawcaw series. The erodibility of the soil (K) averages 0.20; the slope of the terrain averages 3%, with a range of 0-15%. Land use/land cover in the watershed includes: 2.38% urban land, 16.36% agricultural land, 2.04% scrub/shrub land, 0.31% barren land, 61.84% forested land, 16.04% forested wetland (swamp), and 1.03% water.

The headwaters of Cedar Creek flow through Westons Pond (240 acres), Harmons Pond (50 acres), Morrells Pond (60 acres), Clarkson Pond (40 acres), and Duffies Pond (80 acres) before accepting the drainage of Reeves Branch and Myers Creek (Cabin Branch, Horsepen Branch, Goose Branch). After the confluence with Myers Creek, Cedar Creek flows through Wise Lake and Weston Lake and accepts drainage from Dry Branch before entering the Congaree River. The lower section of the watershed, from Wise Lake to the river, contains a large portion of the Congaree River Swamp National Monument, a wetland preserve. There are numerous recreational lakes and ponds in this watershed and a total of 138.0 stream miles, all classified FW.

### Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
C-578	BIO	FW	MYERS CREEK AT SR 734
C-069	S/BIO	FW	CEDAR CREEK AT S-40-66
C-071	BIO	FW	CEDAR CREEK AT S-40-734
C-075	P	FW	CEDAR CREEK S OF S-40-734 AT OLD USGS GAGING PLATFORM

*Cedar Creek* - There are three monitoring sites along Cedar Creek, which was Class B until April, 1992. At the upstream site (C-069), aquatic life uses are fully supported based on macroinvertebrate community data, but there is a significant increasing trend in turbidity. At the midstream site (C-071), aquatic life uses are also fully supported based on macroinvertebrate community data. At the downstream site (C-075), aquatic life uses are again fully supported. P,P'DDE, a metabolite of DDT, and P,P'DDT were detected in the 1997 sediment sample. Although the use of DDT was banned in 1973, it is very persistent in the environment. These sites are part of a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions were noted, they were typical of values seen in such systems. Recreational uses are fully supported at all sites.

*Myers Creek (C-578)* - This stream was Class B until April, 1992. Aquatic life uses are fully supported based on macroinvertebrate community data.

## Permitted Activities

### Point Source Contributions

**RECEIVING STREAM**  
**FACILITY NAME**  
**PERMITTED FLOW @ PIPE (MGD)**  
**COMMENT**

**NPDES#**  
**TYPE**  
**LIMITATION**

CEDAR CREEK  
 SC AIR NATL. GUARD/MCENTIRE  
 PIPE #: 001 FLOW: M/R

SC0000701  
 MINOR INDUSTRIAL  
 EFFLUENT

CEDAR CREEK  
 US ARMY/FORT JACKSON  
 PIPE #: 001 FLOW: 0.05  
 WQL FOR DO

SC0003786  
 MINOR INDUSTRIAL  
 WATER QUALITY

CEDAR CREEK  
 CEDAR CREEK MHP  
 PIPE #: 001 FLOW: 0.01575

SC0032018  
 MINOR DOMESTIC  
 EFFLUENT

CEDAR CREEK TRIBUTARY  
 RICHLAND DISTRICT I/GADSDEN  
 PIPE #: 001 FLOW: 0.01  
 WQL FOR NH3-N, DO, TRC, BOD5

SC0031526  
 MINOR MUNICIPAL  
 WATER QUALITY

CABIN BRANCH  
 FRANKLIN PARK SD/CAROLINA WATER  
 PIPE #: 001 FLOW: 0.04  
 WQL FOR TRC

SC0031399  
 MINOR DOMESTIC  
 WATER QUALITY

CABIN BRANCH TRIBUTARY  
 HOPKINS JR HIGH/RICHLAND CO.  
 PIPE #: 001 FLOW: 0.03  
 WQL FOR NH3-N, DO, TRC

SC0031500  
 MINOR MUNICIPAL  
 WATER QUALITY

HORSEPEN BRANCH  
 HOPKINS ELEMENTARY SCHOOL  
 PIPE #: 001 FLOW: 0.03  
 WQL FOR NH3-N, TRC

SC0031496  
 MINOR MUNICIPAL  
 WATER QUALITY

GOOSE BRANCH  
 SQUARE D COMPANY  
 PIPE #: 001 FLOW: 0.007  
 WETLAND; WQL FOR BOD5

SC0004286  
 MAJOR INDUSTRIAL  
 WATER QUALITY

**LAND APPLICATION**  
**FACILITY NAME**

**PERMIT#**  
**TYPE**

SPRAYFIELD  
 MANCHESTER FARMS

ND0068969  
 INDUSTRIAL

### ***Nonpoint Source Contributions***

#### **Evaluation of Groundwater and Surface Water Agricultural Chemical Loadings and Transport To Support BMP Selection**

This project is an assessment of NPS runoff and effects on water quality, and was conducted by the University of South Carolina. It is directed toward characterizing and quantifying the transport of the herbicide trifluralin and the nutrient nitrate from a rowcrop field to groundwaters and streams in the watershed. The study provided data to determine the mechanism for herbicide and nitrate transport, and provided information on which to base the selection of BMPs to reduce the migration of agricultural chemicals. This project commenced in August of 1996 and was finished in April of 1998.

### **Growth Potential**

There is a low to moderate growth potential for this watershed. The area is predominately rural with small residential areas and one industry. U.S. Highway 378 and Bluff Road (Highway 48) cross the watershed, as does a rail line. The area adjacent to the City of Columbia (Garners Ferry/Leesburg Road) has the only available water and sewer service, and is the primary area of growth in the watershed.